

IN THE CLAIMS

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1. (previously presented): A method for forming a coating on an inorganic or organic substrate, wherein

- a) a low-temperature plasma, a corona discharge, high-energy radiation and/or a flame treatment is caused to act on the inorganic or organic substrate,
- b) 1.) at least one activatable initiator or 2.) at least one activatable initiator and at least one ethylenically unsaturated compound is/are applied in the form of a melt, solution, suspension or emulsion to the inorganic or organic substrate, there being incorporated in the activatable initiator and/or the ethylenically unsaturated compound at least one group that interacts with a subsequently applied coating or reacts with groups contained therein, with the effect of promoting adhesion, and
- c) the coated substrate is heated and/or is irradiated with electromagnetic waves and an adhesion promoter layer is formed,
- d) the substrate so pretreated is provided with a further coating which contains reactive groups that react with those of the adhesion promoter layer and/or interact with the adhesion promoter layer.

2. (currently amended): A method according to claim 1, wherein the inorganic or organic substrate is in the form of a powder, a fibre, a woven fabric, a felt[,] or a film ~~or a three-dimensional workpiece~~.

3. (previously presented): A method according to claim 1, wherein the organic substrate is or comprises a synthetic or natural polymer, a metal oxide, a glass, a semi-conductor, quartz or a metal.

4. (previously presented): A method according to claim 1, wherein the organic substrate is or comprises a homopolymer, block polymer, graft polymer and/or copolymer and/or a mixture thereof.

5. (previously presented): A method according to claim 1, wherein the organic substrate is or comprises a polycarbonate, polyester, halogen-containing polymer, polyacrylate, polyolefin, polyamide, polyurethane, polystyrene, polyaramide and/or polyether.

6. (previously presented): A method according to claim 1, wherein the initiator is a compound or combination of compounds from the classes of the peroxides, peroxodicarbonates, persulfates, benzpinacols, dibenzyls, disulfides, azo compounds, redox systems, benzoin, benzil ketals, acetophenones, hydroxyalkylphenones, aminoalkylphenones, acylphosphine oxides, acylphosphine sulfides, acyloxyiminoketones, peroxy compounds, halogenated acetophenones, phenyl glyoxylates, benzophenones, oximes and oxime esters, thioxanthenes, ferrocenes, titanocenes, sulfonium salts, iodonium salts, diazonium salts, onium salts, borates, triazines, bisimidazoles, polysilanes and dyes, and also corresponding coinitiators and/or sensitizers.

7. (previously presented): A method according to claim 1, wherein the initiator has at least one ethylenically unsaturated group, especially a vinyl, vinylidene, acrylate, methacrylate, allyl or vinyl ether group.

8. (previously presented): A method according to claim 1, wherein the ethylenically unsaturated compound is used in the form of a monomer, oligomer and/or polymer.

9. (previously presented): A method according to claim 1, wherein the ethylenically unsaturated compound is a mono-, di-, tri-, tetra- or poly-functional acrylate, methacrylate or vinyl ether.

10. (previously presented): A method according to claim 1, wherein the low-temperature plasma is run in a gas and the gas is air, water, reactive gas, inert gas, or a mixture thereof.

11. (previously presented): A method according to claim 1, wherein method step b) is carried out by immersion, spraying, coating, brush application, knife application, rolling, roller application, spin-coating, printing or pouring.

12. (previously presented): A method according to claim 1, wherein the melt, solution, suspension or emulsion used in method step b) contains the initiator(s) in a concentration of from 0.01 to 20 %.

13. (previously presented): A method according to claim 1, wherein the melt, solution, suspension or emulsion used in method step b) contains the unsaturated compound(s) in a concentration of from 0.1 to 30 %.

14. (previously presented): A method according to claim 1, wherein the melt, solution, suspension or emulsion used in method step b) may additionally comprise other substances chosen from defoamers, emulsifiers, surfactants, anti-fouling agents, wetting agents and other additives customarily used in the coatings industry.

15. (previously presented): A method according to claim 1, wherein the thickness of the applied layer in the dry state ranges from a monomolecular layer up to 2 mm .

16. (previously presented): A method according to claim 1, wherein in method step c) irradiation is carried out using sources which emit electromagnetic waves of wavelengths in the range from 200 nm to 20 000 nm or by means of electron beams, optionally preceded by a drying step.

17. (previously presented): A method according to claim 1, wherein in method step c) irradiation is effected over the whole area or parts thereof.

18. (previously presented): A method according to claim 1, wherein in method step c) partial irradiation is effected and unexposed material is then removed.

19. (currently amended): A method according to claim 1, wherein method step d) is carried out by immersion, spraying, coating, brush application, knife application, rolling, roller application, spin-coating, printing, pouring, lamination, vapour deposition[[,]] or sputtering ~~or bringing into contact~~.

20. (cancelled).

21. (previously presented): A method according to claim 1, wherein the coating applied in method step d) are solid or liquid materials.

22. (currently amended): A method according to claim 1, wherein the coating[[s]] applied in method step d) are resist materials, paints, colorants, release layers, protective layers, printing inks, adhesives and/or films, woven fabrics, fibres[[,]] or metallic layers.

23. (cancelled).